UNITED STATES DISTRICT COURT

FOR THE SOUTHERN DISTRICT OF NEW YORK

VIACOM INTERNATIONAL, INC., COMEDY PARTNERS, COUNTRY MUSIC. TELEVISION, INC., PARAMOUNT PICTURES CORPORATION, and BLACK ENTERTAINMENT TELEVISION, LLC,	)	
Plaintiffs,	)	
vs.	)	NO. 07-CV-2203
YOUTUBE, INC., YOUTUBE, LLC, and GOOGLE, INC.,	)	
Defendants.	)	
THE FOOTBALL ASSOCIATION PREMIER LEAGUE LIMITED, BOURNE CO., et al., on behalf of themselves and all others similarly situated,	)	
Plaintiffs,	)	
vs.	)	NO. 07-CV-3582
YOUTUBE, INC., YOUTUBE, LLC, and GOOGLE, INC.,	)	
Defendants.	)	

VIDEOTAPED DEPOSITION OF MICHAEL SOLOMON
PALO ALTO, CALIFORNIA
TUESDAY, SEPTEMBER 1, 2009

JOB NO. 17576

SEPTEMBER 1, 2009

9:05 a.m.

VIDEOTAPED DEPOSITION OF MICHAEL SOLOMON, WILSON SONSINI GOODRICH & ROSATI, 650 Page Mill Road, Palo Alto, California, pursuant to notice, and before me, ANDREA M. IGNACIO HOWARD, CLR, RPR, CRR, CSR License No. 9830.

A P P E A R A N C E S:

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A P P E A R A N C E S (Continued.)

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ALSO PRESENT: Kelly Truelove, Consultant
Stewart Pettigrew, Videographer.

---oOo---

09:13:21 start working on it or when did it become a company
09:13:25 and when did I start getting paid?
09:13:26 Q Let's take it step by step.
09:13:28 When did you first start working at YouTube,
09:13:30 whether paid or unpaid and whether or not it was a
09:13:33 company?
09:13:34 A Maybe May of 2005.
09:13:39 Q Okay. And was -- were you being paid in May
09:13:46 of 2005?
09:13:48 A No.
09:13:48 Q Okay. So in what capacity were you
09:13:51 affiliated with YouTube in May of 2005?
09:14:02 A Steve would ask me how to solve problems. I
09:14:06 would give him the answers.
09:14:07 Q What's Steve's last name?
09:14:09 A Chen.
09:14:10 Q Okay. And he is one of the original founders
09:14:15 of YouTube; is that correct?
09:14:16 A Yes.
09:14:16 Q And there were two others; is that correct?
09:14:20 A Yes.
09:14:21 Q They were?
09:14:25 A Jawed Karim and Chad Hurley.
09:14:30 Q Okay. So at that time, in May of 2005, when

09:14:33 you started working with YouTube in a non- -- in an
09:14:40 unpaid capacity, were there any other individuals
09:14:44 either employed at YouTube or working in the same kind
09:14:46 of unpaid capacity other than you and the three
09:14:50 founders?
09:15:00 A Maybe Yu Pan.
09:15:04 Q Okay. Anybody else that you recall?
09:15:13 A Maybe Christina Brodbeck.
09:15:23 Q Was Cuong Do, D-O, affiliated with YouTube at
09:15:41 that time?
09:15:41 A No, I don't think so.
09:15:51 Q Okay. So at that time when it was the three
09:15:59 founders, you, maybe Yu Pan, and maybe Christina
09:16:06 Broadbeck, were you the principal software engineer at
09:16:11 that time?
09:16:13 A You could say that.
09:16:19 Q Okay. So you started in May of 2005 in an
09:16:28 unpaid capacity. Did that capacity ever change as
09:16:31 time went on?
09:16:34 A Yes.
09:16:34 Q When was that?
09:16:40 A I think October of that year.
09:16:43 Q And how did it change in October of 2005?
09:16:50 A The company was, you know, formally

09:16:52 incorporated and we started getting paid.

09:16:57 Q Okay. In October of 2005, were there

09:17:10 additional employees at YouTube other than you, the

09:17:12 three fan -- founders, maybe Yu Pan, and maybe

09:17:18 Christina Broadbeck?

09:17:26 A I think so.

09:17:29 Q Do you recall their names?

09:17:36 A I think Chad -- Chad's brother Brent, had

09:17:41 probably started working there by then, if -- very

09:17:46 soon after if not.

09:17:49 Q Anybody else?

09:17:50 A Right around the time that we incorporated, I

09:17:53 don't really recall.

09:17:55 Q Okay. Is Brent a software engineer?

09:17:58 A No, he is not.

09:17:59 Q Okay. So when was the -- actually, let me

09:18:06 strike that and back up.

09:18:07 Did there ever come a time when YouTube hired

09:18:10 another software engineer other than you?

09:18:13 A Yes.

09:18:13 Q Who was the first software engineer other

09:18:17 than you to be hired by YouTube?

09:18:32 A Either Yu Pan or Cuong.

09:18:37 Q I'm sorry. What was the second name after Yu

09:18:40 Pan?

09:18:44 A Cuong.

09:18:45 Q Is that Mr. Do?

09:18:47 A I'm sorry. Yes.

09:18:56 Q What were your responsibilities in that

09:18:58 October 2005 time frame?

09:19:05 A Mostly just software development, general

09:19:08 operations work.

09:19:11 Q And when you say "software development" and

09:19:15 "operations work," was that all development and work

09:19:18 on developing the YouTube.com website?

09:19:23 A Yes, in the systems, you know, behind the

09:19:26 scenes that supported them.

09:19:27 Q Okay. Would you include what are known as

09:19:55 the "admin websites" as part of the behind-the-scene

09:19:58 systems?

09:20:01 MR. WILLEN: Objection to the form; assumes

09:20:03 facts.

09:20:05 MR. DESANCTIS: Q. Are you familiar with

09:20:06 the -- with the admin websites that are part of the

09:20:09 YouTube system?

09:20:11 A I'm familiar with one website, yes.

09:20:14 Q Okay. Well, what is that website? What --

09:20:17 A That is the admin website.

09:20:20 Q Do you know the URL for that?

09:20:23 A Yes.

09:20:23 Q What is that?

09:20:24 A Admin.YouTube.com.

09:20:34 Q Is that accessible by the public?

09:20:37 MR. WILLEN: Objection to the form; vague.

09:20:39 THE WITNESS: You'll have to be more specific about what you mean by "public."

09:20:45 MR. DESANCTIS: Q. To -- is it available -- is it accessible by non-YouTube or non-Google employees?

09:20:56 A No.

09:20:57 Q Okay. Can you tell me generally, not all the specifics, but generally what the Admin.Youtube.com website is?

09:21:06 A Generally, it's admin tools for the YouTube website.

09:21:10 Q Okay. And is it right that those admin tools are available only to YouTube and Google employees?

09:21:35 A I don't know the policies that are associated with admin these days.

09:21:39 Q Okay. And were you involved in developing the admin.YouTube.com site?

09:21:50 MR. WILLEN: Objection to the form; vague.

09:23:02 A Almost all projects, regardless of who the
09:23:05 primary author, would normally have a discussion with
09:23:09 me.
09:23:14 Q I'm sorry. Your answer was, "Almost all
09:23:24 projects, regardless of who the primary author, would
09:23:26 normally have a discussion with me."
09:23:30 They would normally have discussions with you
09:23:33 about anything, about what?
09:23:35 A Technical direction, implementation details.
09:23:37 Q Okay. For all projects at YouTube?
09:23:40 A Not for all, but for the majority.
09:23:45 Q Okay. So if not you, was there a different
09:24:00 software engineer who was primarily responsible for
09:24:03 developing the admin.YouTube.com website?
09:24:06 A Yes.
09:24:07 Q Who was that?
09:24:15 A Probably Erik Klein.
09:24:28 Q Do you recall when Erik Klein first began
09:24:31 working at YouTube, approximately?
09:24:34 A 2006.
09:24:34 Q Early? Middle? Late?
09:24:40 A Early.
09:24:40 Q Before early 2006, was there an
09:24:55 admin.YouTube.com website?

10:33:20 What is being sent over these arrows from the
10:33:23 end user to these three various destinations?
10:33:27 MR. WILLEN: Objection to the form.
10:33:34 THE WITNESS: This is just a conceptual
10:33:36 document. It doesn't really reflect reality.
10:33:40 MR. DESANCTIS: Q. Well, because it -- is it
10:33:49 a -- because it's a summary? I mean, it obviously
10:33:52 doesn't have all of the detail in the YouTube
10:33:54 network --
10:33:55 A Uh-huh.
10:33:55 Q -- but if we -- is it -- do you understand
10:34:00 what the document is portraying?
10:34:09 A Only using my internal knowledge of the
10:34:11 system.
10:34:12 Q Okay. Well, that's -- that's good.
10:34:16 Using your internal knowledge of the system,
10:34:22 what is it that's being sent -- do you know what's
10:34:25 being sent over these arrows --
10:34:29 MR. WILLEN: Object.
10:34:29 MR. DESANCTIS: Q. -- over the three arrows
10:34:31 running from the end user icon to the three
10:34:34 destinations, net scaler, video servers, and CDN?
10:34:38 MR. WILLEN: Objection to the form.
10:34:40 THE WITNESS: My understanding is not that --

10:34:46 is that this is just showing at a high level where
10:34:52 data comes from.
10:34:53 MR. DESANCTIS: Okay.
10:34:54 Q Where data comes from from -- for what
10:34:57 purpose?
10:34:58 MR. WILLEN: Objection to the form.
10:35:07 MR. DESANCTIS: Let me suggest.
10:35:08 Q Is it when an end user requests a Watch Page?
10:35:11 A It doesn't seem to indicate that. It --
10:35:17 yeah.
10:35:17 Q So you don't know if it's --
10:35:19 A I don't know what it's referring to. It's
10:35:20 very generic.
10:35:23 Q Okay. Okay. I'm sorry to do this to you,
10:35:33 but I just need to consult with my team for a minute,
10:35:36 so can we have another three-minute break and --
10:35:38 MR. WILLEN: Sure. No problem.
10:35:40 THE VIDEOGRAPHER: The time is 10:35.
10:35:42 Off the record.
10:35:43 (Recess taken.)
10:41:46 THE VIDEOGRAPHER: The time is 10:42.
10:41:48 On the record.
10:41:49 MR. DESANCTIS: Okay.
10:41:52 Q Mr. Solomon, when a -- when a user uploads a

10:41:57 video, YouTube stores that video; correct?

10:42:02 MR. WILLEN: Objection to the form.

10:42:04 THE WITNESS: Yes, video is stored when you

10:42:14 upload it.

10:42:15 MR. DESANCTIS: Okay.

10:42:23 Q But it's not necessarily stored in the format

10:42:26 that the user uploaded it in; correct?

10:42:33 A Yes, it is always stored in the format it's

10:42:36 uploaded in.

10:42:37 Q Okay. Is it also -- is a video uploaded by a

10:42:43 user also transcoded into a format other than what the

10:42:48 user uploaded it in?

10:42:51 A Yes, a transcode is always attempted.

10:42:54 Q Okay. So there is the original copy uploaded

10:43:01 by the user in the format uploaded by the user, and

10:43:04 then, if I understand correctly, YouTube transcodes

10:43:09 that or attempts to transcode that and, if successful,

10:43:14 makes a second copy in a new transcoded format?

10:43:18 MR. WILLEN: Objection to the testimony.

10:43:21 THE WITNESS: When -- during the upload

10:43:23 process, the file that the user uploads is stored.

10:43:26 The transcoder process attempts to convert that

10:43:32 original uploaded file into a file playable by the

10:43:36 website.

10:43:36 MR. DESANCTIS: Okay.

10:43:44 Q And if successful -- if the attempt to convert the original file is successful, does YouTube make additional copies?

10:43:57 MR. WILLEN: Objection to the form.

10:44:00 THE WITNESS: Yeah, I don't understand "additional copies."

10:44:02 MR. DESANCTIS: Okay.

10:44:03 Q Well, there's the original copy uploaded by the user in the format uploaded by the user.

10:44:09 A (Witness nods head.)

10:44:10 Q Then YouTube attempts to transcode that file.

10:44:13 A Uh-huh.

10:44:14 Q If successful, we then have two -- YouTube then has two copies, the original and the transcoded copy; correct?

10:44:23 A They are different, completely different files. They have no -- like -- they are usually completely unrelated to the -- to each other.

10:44:32 Q Okay. Does YouTube make any copies of the transcoded file?

10:44:42 MR. WILLEN: Are you done with the question?

10:44:44 Objection to the form of the question.

10:44:50 THE WITNESS: The process of transcoding

10:44:55 creates a new file.

10:44:56 MR. DESANCTIS: Right. The process of

10:44:58 transcoding creates one new file. That's good.

10:45:03 Q Does YouTube then create additional copies of

10:45:05 that one file, or does YouTube maintain only one copy

10:45:11 of the transcoded file?

10:45:15 MR. WILLEN: Objection to the form; objection

10:45:18 to what's meant by "YouTube."

10:45:22 THE WITNESS: Also, I'm not exactly sure what

10:45:24 you mean by "copy."

10:45:27 MR. DESANCTIS: What's confusing about the --

10:45:33 when I say the copy of a -- of a -- I'm sorry. Let me

10:45:35 back up.

10:45:48 Q I had said the process of transcoding creates

10:45:54 one new file, and I then asked, does YouTube then

10:45:58 create additional copies of that one file, or does

10:46:01 YouTube maintain only one copy of the transcoded file?

10:46:05 So when I -- you asked me -- what is it about

10:46:07 copy that you don't understand?

10:46:10 A You mean -- well, copying mean -- meaning an

10:46:15 exact identical copy of the -- of the file.

10:46:19 Q Yeah, I mean a duplicate file copy of the

10:46:22 same data.

10:46:24 A Yes, there's -- there's a copy of the file.

10:46:30 Q Okay. So -- so the -- that I'm clear,
10:46:35 there's the original uploaded by the user.
10:46:37 A Uh-huh.
10:46:38 Q There is the -- let's call it the initial
10:46:41 transcoded file.
10:46:42 A Uh-huh.
10:46:42 Q And YouTube then makes an additional copy of
10:46:46 the transcoded file, so there are in -- in total
10:46:50 three --
10:46:51 MR. WILLEN: Objection to the --
10:46:53 MR. DESANCTIS: Q. -- versions of -- well --
10:47:00 MR. WILLEN: So objection --
10:47:00 MR. DESANCTIS: Q. -- there are --
10:47:00 MR. WILLEN: Sorry, finish your question.
10:47:02 MR. DESANCTIS: Q. So there would be a total
10:47:03 of three files representing the video up -- uploaded
10:47:06 by the user?
10:47:07 MR. WILLEN: So just let me object.
10:47:11 THE WITNESS: Okay.
10:47:11 MR. WILLEN: So objection to the form of all
10:47:13 of that. Particularly, to the recharacterization of
10:47:18 Mr. Solomon's testimony that was embedded into the
10:47:21 question.
10:47:24 THE WITNESS: So I think to answer precisely,

10:47:27 I need to know what time frame we're talking about
10:47:30 and -- yeah.
10:47:35 MR. DESANCTIS: Okay.
10:47:35 Q Let's talk about the middle of 2006.
10:47:44 A So in the middle of 2006, there would be the
10:47:55 original file, the transcoded video, and either one or
10:48:07 two backup copies, depending on which type of hardware
10:48:12 they're running on.
10:48:13 Q Okay. So let's focus for now on the
10:49:05 transcoded copy and the one or two backups.
10:49:12 In the mid-2006 time frame, where were those
10:49:16 files stored by YouTube?
10:49:29 A Are you asking the -- the physical location?
10:49:33 Q I'm -- let's -- let's -- I will, but let's
10:49:37 take a step back.
10:49:38 Were -- were the trans- -- in the mid-2006
10:49:42 time frame, were the transcoded copy and the one or
10:49:45 two backups of uploaded videos stored on servers owned
10:49:50 and operated by YouTube?
10:49:55 A I think the answer is maybe.
10:49:58 Q Why maybe?
10:49:59 A Because I don't recall when our first data
10:50:05 centers came online.
10:50:10 Q Okay. When you say the data server -- "data

14:02:38 the right -- he may have had the right to do that at
14:02:41 the time this e-mail was written, but a user would not
14:02:43 have had the right to do that after you had the filter
14:02:46 in place; correct?
14:02:48 MR. WILLEN: Objection to the form.
14:02:51 THE WITNESS: Can you specify? I mean, it's
14:02:53 unclear of what the meaning of the word "right" is
14:02:58 here in this particular context.
14:02:59 MR. DESANCTIS: Sure. That's fair, and I
14:03:04 suppose we can't divine what a particular user meant
14:03:09 by a particular word.
14:03:13 Q Let me ask it this way: Do you recall the
14:03:20 blocking tool or filter, as you called it, ever having
14:03:22 been put in place?
14:03:24 A Yes.
14:03:24 Q Okay. Do you recall approximately when it
14:03:27 was put in place?
14:03:30 A I do not. No, not from memory.
14:03:34 Q And how did that filter work?
14:03:40 A The filter computes a hash of the uploaded
14:03:45 file and compares it against the hash values of other
14:03:50 files that the user has uploaded.
14:03:53 Q Okay. And if it matches other files, what
14:03:59 happens? First of all, if the hashes -- if the hash

14:04:03 of one file matches the hash of another file, what
14:04:07 does that indicate about the two files?
14:04:10 A It means that there's a reasonable chance
14:04:13 that they're the same, but it's not 100 percent.
14:04:15 There could be collisions.
14:04:19 Q Okay. So what happened -- how does your
14:04:24 filter respond if there are two files with the same
14:04:31 hash uploaded by the same user?
14:04:36 A It's been a while, so I can say generally,
14:04:38 but some of the specific actions, you know, I may not
14:04:41 recall.
14:04:44 Q That's fine.
14:04:45 A But the general -- the general idea is to
14:04:47 mark subsequent files as -- as a duplicate rejection.
14:04:53 Q Okay. And are subsequent files marked as a
14:05:05 duplicate rejection before they are sort of publicly
14:05:11 viewable on the website?
14:05:14 A Yes. It goes directly from the uploaded
14:05:17 state to the rejected state.
14:05:19 Q Okay. And the reason it's rejected, when
14:05:24 this filter is being used, is not because it was
14:05:31 previously rejected or previously deleted or anything
14:05:35 like that, it's simply because there are -- the same
14:05:39 user has already uploaded the identical video?

SOLOMON, M.

14:05:43 MR. WILLEN: Objection to form.

14:05:45 MR. DESANCTIS: I'm just trying to understand.

14:05:47 THE WITNESS: The filter -- the purpose of the filter is to prevent the same user from uploading the identical video again.

14:05:55 MR. DESANCTIS: Okay.

14:05:55 THE WITNESS: And so once he's uploaded it, a hash is computed, and then a subsequent file can be uploaded. If the -- if the hash matches, then that subsequent file and any subsequent file from that -- that matches the hash within that user, it's marked as a -- as a reject, yeah.

14:06:16 MR. DESANCTIS: Okay.

14:06:20 Q Is that still in place today, that filter?

14:06:23 A I do not know.

14:06:24 Q Okay. When the filter was in place -- well, was it in place ever?

14:06:29 A Yes.

14:06:29 Q Okay. When it was in place, if a user wanted to upload multiple copies of the same file, could they have?

14:06:45 A It's vague as your -- I mean, in terms of what do you mean by "user"?